

ABSTRACT OF THE DISCLOSURE

5 The present invention discloses an apparatus for controlling
a layer jump process of an optical drive. The layer jump control
apparatus has a pick up head having a lens and a voice coil motor,
a preamplifier for producing a focusing error signal, a
10 controller for receiving the focusing error signal and producing
a focusing control signal, a low pass filter for receiving the
focusing control signal and producing a layer distance balancing
signal, and a driving device to send a driving force to the pick
up head. When the optical drive does not perform the layer jump
15 process, the driving device receives the focusing control signal
to determine the driving force; and when the optical drive
performs the layer jump process, the driving device receives a
kicking signal and the layer distance balancing signal to
determine the driving force when the optical drive performs the
20 kicking process; the driving device receives a braking signal
and the layer distance balancing signal to determine the driving
force when the optical drive performs the braking process; and
the driving device receives the layer distance balancing signal
to determine the driving force when the optical drive performs
the holding process and the waiting process.